

REMARKS

As shown in the accompanying Listing of Claims, Applicants amend claim 1 to recite:

A method for acquiring images using an automated optical microscope system, comprising the steps of:

configuring an optical microscope system which comprises a camera **having a photosensitive surface and providing an output image representing a frame as a sequence of electrical signals**, a microscope **adapted to expose one optical image on the photosensitive surface of the camera for conversion to one output image representing one frame**, an information handling system and a device for altering an image acquisition parameter;

acquiring **members of a stack of output** images at a rate **equal to or** less than and substantially close to the maximum image acquisition rate of said camera; and

altering, during image acquisition, at least one image acquisition parameter which applies to the next image;

wherein the configuring step comprises initializing a range of values over which said image acquisition parameters will vary during the acquiring of images.

The amendment is supported by the entire specification as filed, and especially paragraphs [0057] to [0090] as published at US 2004/0196365 A1. The claim as amended was generated by Applicants' attorney as a result of the discussion of the prior art at the phone interview summarized below, but this specific language was not discussed then.

PHONE INTERVIEW

Applicants' attorney appreciatively acknowledges the Examiner's courtesy in conducting an interview for this case by telephone on March 9, 2006. The substance of the interview is as follows:

THE PRIOR ART

The Final Action of December 27, 2005 rejects all pending claims as anticipated by Bowman et al. U.S. Patent 5,233,197. However, as shown in Fig. 2 and in Figs. 5a, 5b, and 5c and accompanying text at cols. 7-8, Bowman exposes onto the photosensitive surface of the camera (namely CCD imager 62) a multiplicity of optical images from the microscope (referred to in the Bowman text as sub-images 201-204 and as sub-image areas 205, 206, 207, and 208).

In the flowchart shown in Fig. 11, steps 518 and 522 refer to taking an “image.” Step 532 refers to reading out an “image” into RAM. At first glance, one may incorrectly infer that an “image” of steps 518 and 522 is the same as an “image” of step 532. However, reading carefully from Bowman col. 10, line 55 to col. 11, line 12, one finds that the optical “images” 518 and 522 are referred to as “sub-images” on the CCD, that is, the photosensitive surface of the camera. These sub-images, referred to at col. 11, line 8, as “the images stored on the CCD,” are then read out “by slowing the parallel shift rate of the CCD, closing the CCD camera shutter, and serially reading the CCD image into the camera controller RAM”. [Bowman, col. 11, lines 9-12] Thus Bowman teaches that a multiplicity of optical “images” are converted into a single CCD “image”.

Thus, contrary to the present disclosure, Bowman teaches acquisition of **optical images** at a rate that is **greater than the image-acquisition rate** of the CCD camera because Bowman generates a multiplicity of sub-images for each CCD image, which Applicants refer to as a frame. In Bowman, frames which correspond to a multiplicity of sub-images are then acquired from the camera.

In contrast, the present invention provides that the members of a stack of output images be acquired at a rate that is less than or equal to the image-acquisition rate of the camera. The present amendment makes it clear that this end is accomplished by having each optical image from the microscope be exposed as one optical image on the photosensitive surface of the camera for conversion to one output image representing one frame. It is submitted that the present clarifying amendment should not require additional searching and is appropriate for entry at this time.

THE DRAWINGS

The Examiner has objected to the drawings, requiring that all diagrammatic blocks and features of Figures 1-4, 6-8 and 11 be distinctly labeled to indicate contents or function with legends since they are necessary for understanding of the drawing. Applicants’ attorney responded that the parent of this case was filed along with a corresponding PCT application, now published as WO 01/13640 A1, and that PCT regulations **prohibit** extensive text labeling. It is understood that the drawings are going to be viewed along with the text of the specification, and not in a vacuum. Applicants’ attorney submits that it has been the policy of the U.S. Patent and Trademark Office to accept drawings that conform to international practice, and that this policy should be followed here as well.

Applicants’ attorney also reminded the present Examiner, Mr. Young Lee, that Mr. Lee himself had examined the parent case and allowed it as US 6,724,419 B1, with the drawings as presented herein. Since the present disclosure is textually identical to that of the parent case, it is submitted that the drawings that were

acceptable for US patent 6,724,419 should similarly be acceptable for the present case.

During the phone interview, the Examiner's questions as to certain of the reference numerals and their lead lines were clarified.

CONCLUSION

For the foregoing reasons, Applicants ask the Examiner to enter the present amendment, submit that claims 1-15 and 31 are allowable and solicit prompt Notice of Allowance. If the Examiner has any further questions or comments, kindly phone Applicants' attorney to resolve them.

Respectfully submitted:

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/gerryjayelman/

Gerry J. Elman
Reg. 24,404
Customer no. 003775
Elman Technology Law, P.C.

Phone: 610-892-9942
Fax: 925-226-4995
Email: gerry@elman.com